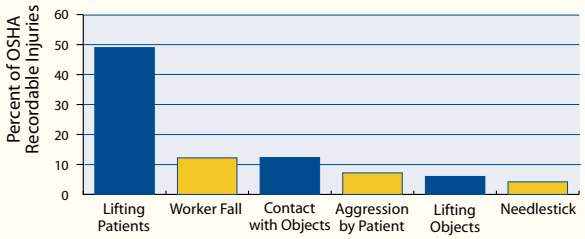
The Patient Handling Problem

Massachusetts healthcare workers have the highest number of workplace injuries and illnesses of all private sector workplaces. In 2007, there were 22,900 injuries and illnesses among healthcare workers that required medical attention or resulted in lost time.[1] Almost 50% of healthcare injuries occur when lifting or moving patients. Many of these injuries do not need to happen. Research has shown that comprehensive Safe Patient Handling Programs can reduce workplace injuries.[2]

Causes of Injuries at Healthcare Facilities



Source: Massachusetts Department of Labor Standards, on-site surveys of long-term nursing facilities, 2002 - 2008[3].

When Injuries Occur

Most caregiver injuries occur during patient transfers and repositioning. A transfer requires moving the patient, usually from the bed to wheelchair, or wheelchair to toilet. Repositioning means shifting the patient in bed, or moving the patient side-to-side to place a bedpan, or change linens in an occupied bed. Assist equipment is available to make these tasks safer.

Why Back and Muscle Injuries Happen

Transferring and repositioning patients put compression force on the caregiver's spine. These forces can cause sudden injury and long-term cumulative damage.

Risk Factors:

- Lifting more than 35 pounds
- Bending
- Bending while lifting
- Reaching and lifting
- Twisting while lifting
- Frequent lifting

Commonwealth of Massachusetts
Deval L. Patrick, Governor
Timothy P. Murray, Lt. Governor
Joanne F. Goldstein, Secretary of Labor and Workforce Development
Heather E. Rowe, Director
Department of Labor

Protecting Healthcare Workers:

Evaluating Your Safe Patient Handling Program

Free Program Assistance

The Massachusetts Department of Labor Standards can visit your workplace to assist you in developing and evaluating your Safe Patient Handling Program. Visit us at **www.mass.gov/dols/consult** for more information. You may also call **978-242-1351 or 508-616-0461**.

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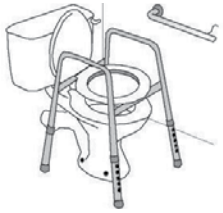
Department of Labor Standards

Evaluating Your Safe Patient Handling Program

A successful Safe Patient Handling Program can reduce workplace injury. A sample program is available at www.mass.gov/dols.

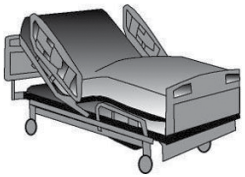
Management Leadership: An effective program requires management leadership to motivate full participation by all departments. Leadership is required to set injury prevention goals, and provide resources for patient lifting equipment, staffing, "No Lift" policies, preventive maintenance, and worker training. Systems are required to keep assist equipment easy to access and keep batteries charged. Support from the Housekeeping and Facilities Maintenance departments is necessary to maintain ergonomic equipment in clean working condition. Policies should place equal emphasis on patient and employee safety.



Facility Equipment and Design: The physical building itself should be designed to reduce worker injury. This includes: handrails, ramps, toilet height, toilet rails, door knob design, automatic doors, weight of doors, weight of laundry and food carts, timing of elevator doors, and slip resistant flooring.

Patient Assessment: Each patient should be evaluated for their weight bearing ability and their cognitive ability to safely stand, walk, use the toilet, and move in bed. Patients who are completely dependent should be transferred with a mechanical lift. Patients who are partially weight bearing should be transferred with a stand assist device. Changes in patient status should be communicated to the next shift of caregivers. For an assessment algorithm, visit **www.visn8.med.va.gov**.

Policies for Manual Lifting: All healthcare facilities are expected to have a policy that prohibits a caregiver from manually lifting a non-weight bearing patient alone.



Patient Beds: Patient beds should be designed to eliminate worker bending. Bed height should be easily adjusted by electric controls or foot-pedal. Beds that are adjusted by hand-cranking require significant worker bending and should be avoided. When transferring a patient to a wheelchair, the bed height should be raised to the same height as the wheelchair. When repositioning a patient, the bed height should be raised to the caregiver's hip. In nursing homes, some residents require a "low bed" in which the mattress is placed close to the floor. These beds should be electrically raised to the worker's hip to provide medicine, provide incontinent care, change the bed linens, or reposition the resident. If your facility does not have electric beds for each patient, then assign the existing electric beds to the patients who require transfer and reposition assistance from caregivers, instead of placing the beds by unit. In addition, develop a plan to obtain electric beds for all patients within the next few years.

Shower and Toilet: Rooms should be designed to eliminate lifting and reduce bending by healthcare providers. Provide railings for both patients and healthcare workers. Install a higher roll of toilet paper for caregivers. Install an easy to reach shelf for shampoo and personal care items. Provide a sharps disposal container within immediate reach when razors are used in the shower or bathrooms. The floor should be smooth and slip resistant, without protrusions for floor drains or hallway thresholds that can block wheels. Some patients should be transferred onto a shower chair or shower bed in the patient room, where there is more room to maneuver. Bariatric and non-weight bearing patients may require two healthcare workers to assist patients in the shower and toilet.

Weighing Patients: Patients should be weighed without being lifted. Free-standing and chair scales should only be used for fully ambulatory patients. Provide ramp scales for wheelchairs, and mechanical lifts that include digital scales.

Worker Injury: Injured healthcare workers should be evaluated by an Occupational Health Clinic. Make modified duty tasks available to facilitate return-to-work, but evaluate your program to ensure that coworkers on that shift are not required to conduct extra lifting to compensate for the modified worker. Some facilities bring injured workers back only on the day shift for the first week, when the unit has the highest staffing. Evaluate each injury for contributing factors. A sample worksheet is provided at **www.mass.gov/dos/patientsafetyevaluation**.

Worker Training: Training is a piece of the Safe Patient Handling Program, not the entire program. New hire and annual training should be conducted. Classroom training should include muscle and spine anatomy, and discussion of risk factors such as bending, reaching, twisting and lifting. The training material must be designed for the healthcare setting, not a factory. Hands-on ergonomic training should be conducted for repositioning, lifting, toileting, showering, and transferring patients. In addition, the worker should demonstrate confidence using all of the mechanical lifts, stand assists, repositioning equipment, beds, and wheelchairs used at the site. A twenty minute training session on body mechanics is not adequate – a minimum of two hour training that focuses on assist equipment is recommended. Supervisors on each unit should get additional training in motivating coworkers to comply with the Safe Patient Handling Program.

Patient Handling Equipment: Healthcare facilities should have equipment to assist caregivers move patient populations who are non-weight bearing or partially weight-bearing. This equipment has been shown to reduce the compression forces on the caregiver's back by 66%.[2]

Equipment includes:[4]

Powered Lift Assist

Gait Belt with Handles

Stand Assist

Electric Beds

Repositioning Sheet

Shower Beds

Lateral Transfer Mat

Ramp Scales

References

1. Massachusetts Department of Labor Standards, "Massachusetts Occupational Injuries and Illnesses Report, 2007." www.mass.gov/dols.
2. Fujishiro, K. "The Effect of Ergonomic Interventions in Healthcare Facilities on Musculoskeletal Disorders," Am J Ind Med 48:338-347 (2005).
3. Massachusetts Department of Labor Standards, on-site surveys of long-term skilled nursing facilities, 2002-2008.
4. Equipment photos obtained from US Department of Labor, OSHA: "Guide lines for Nursing Homes," 3182, 2003. www.osha.gov.